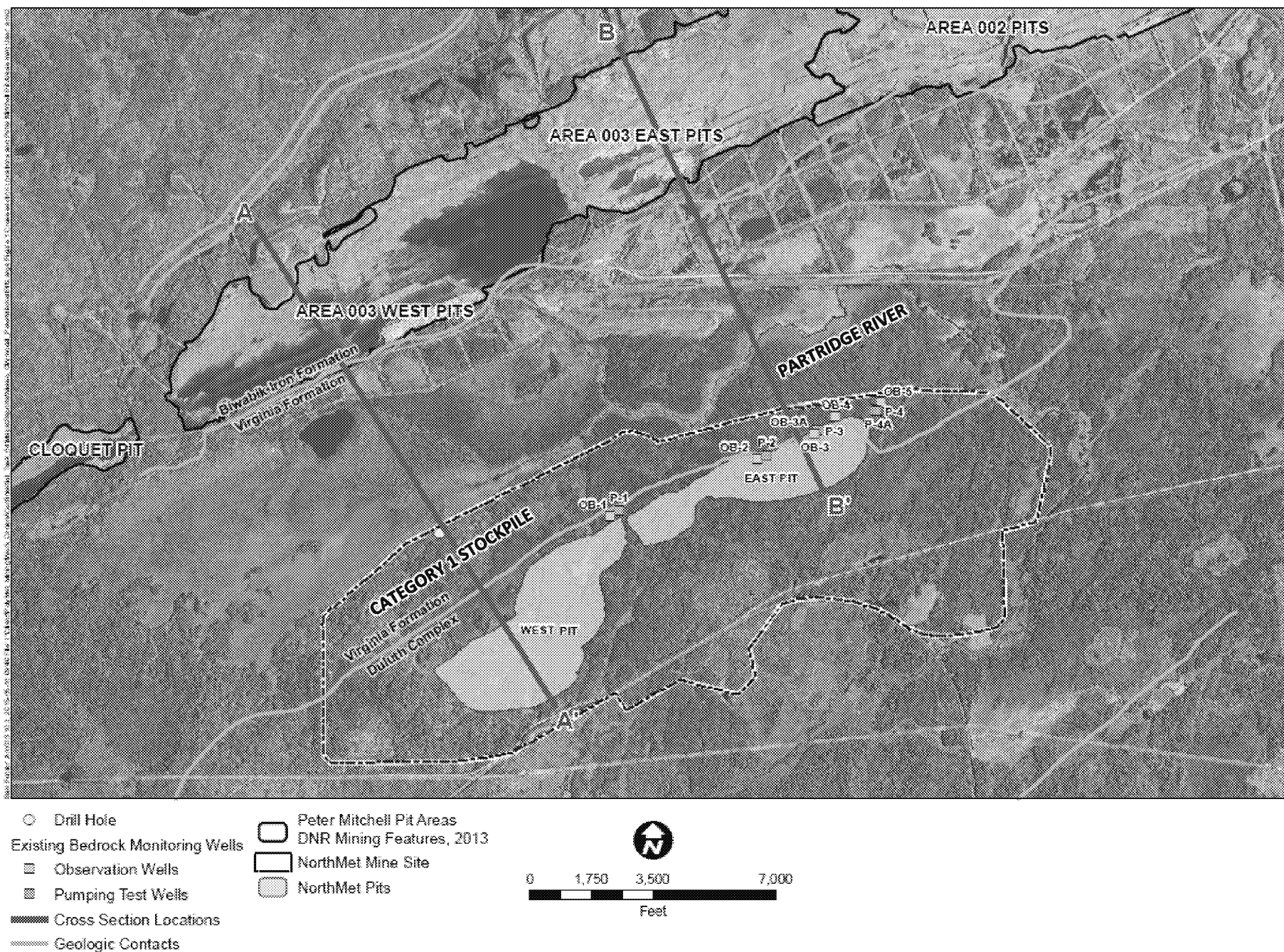
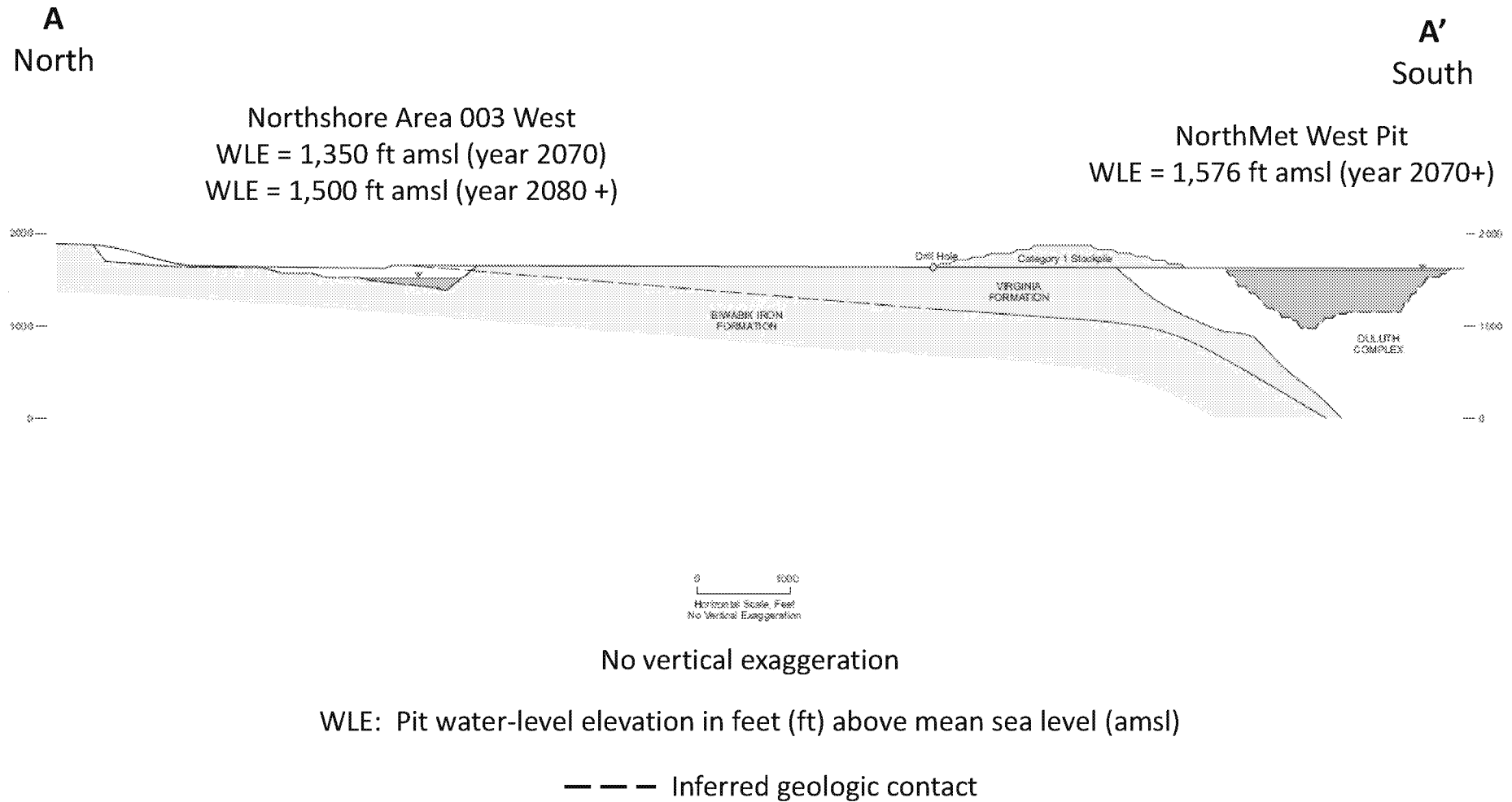
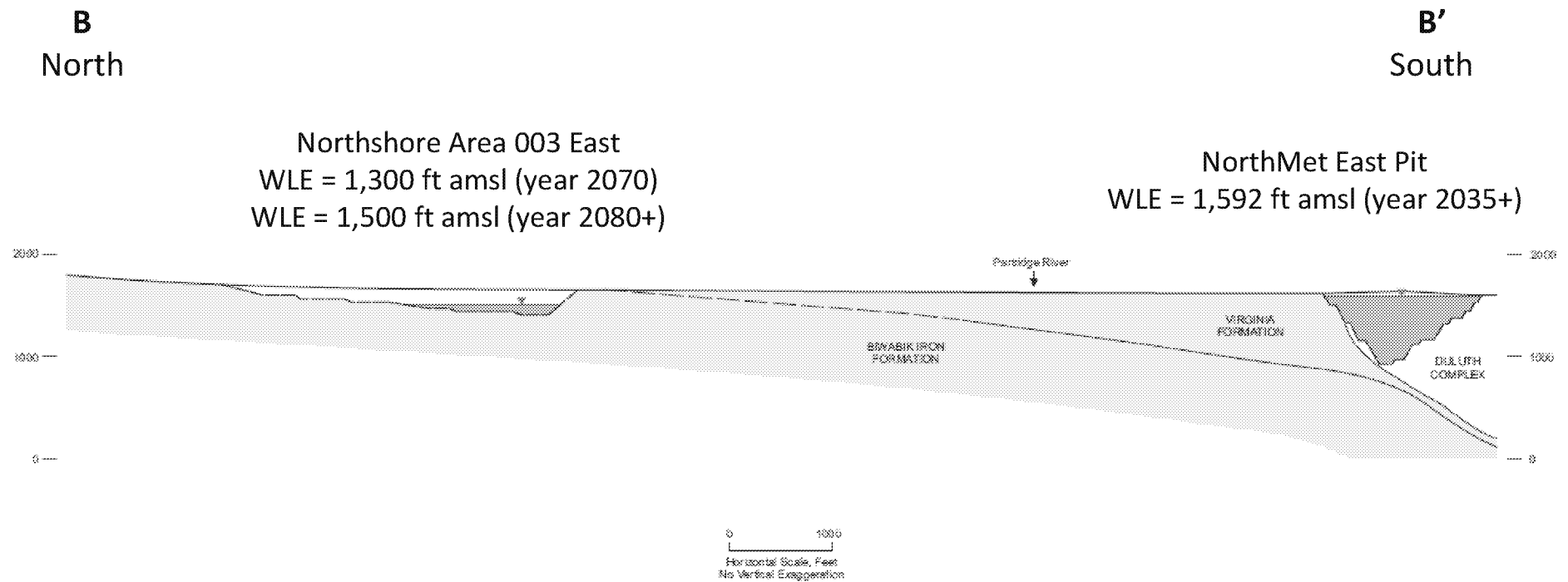


**Figure 1: Physiographic Features and Bedrock Contacts**



**Figure 2: Scaled Cross-Section A-A'**

**Figure 3: Scaled Cross-Section B-B'**

No vertical exaggeration

WLE: Pit water-level elevation in feet (ft) above mean sea level (amsl)

— — — Inferred geologic contact

**Figure 4: Conceptual Model with Sufficient Leakage to Create a Bedrock Groundwater Mound**

Northshore Area 003 East  
WLE = 1,300 ft amsl (year 2070)  
WLE = 1,500 ft amsl (year 2080+)

NorthMet East Pit  
WLE = 1,592 ft amsl (year 2035+)

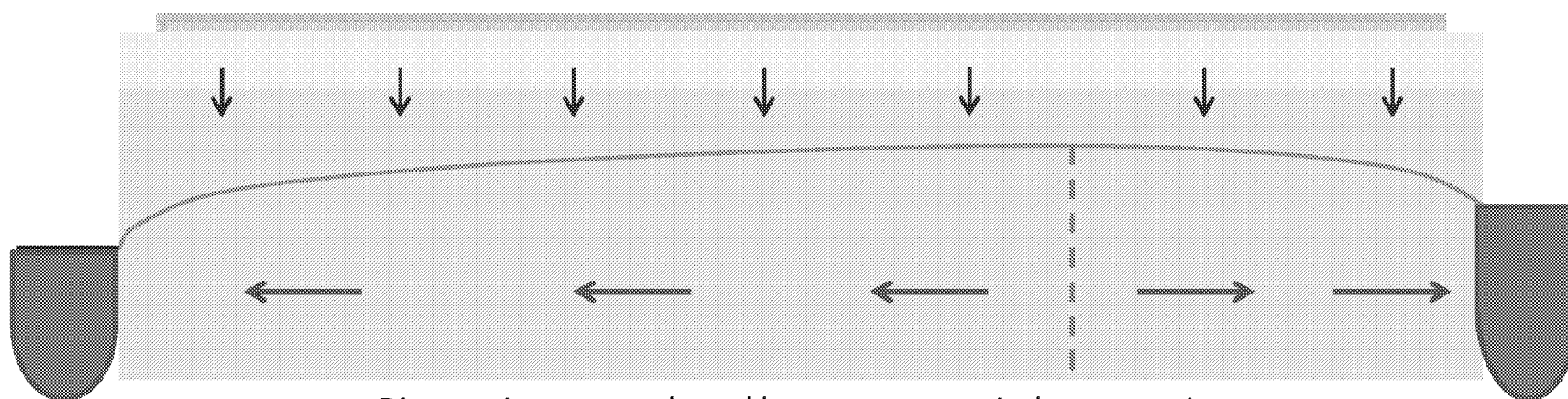
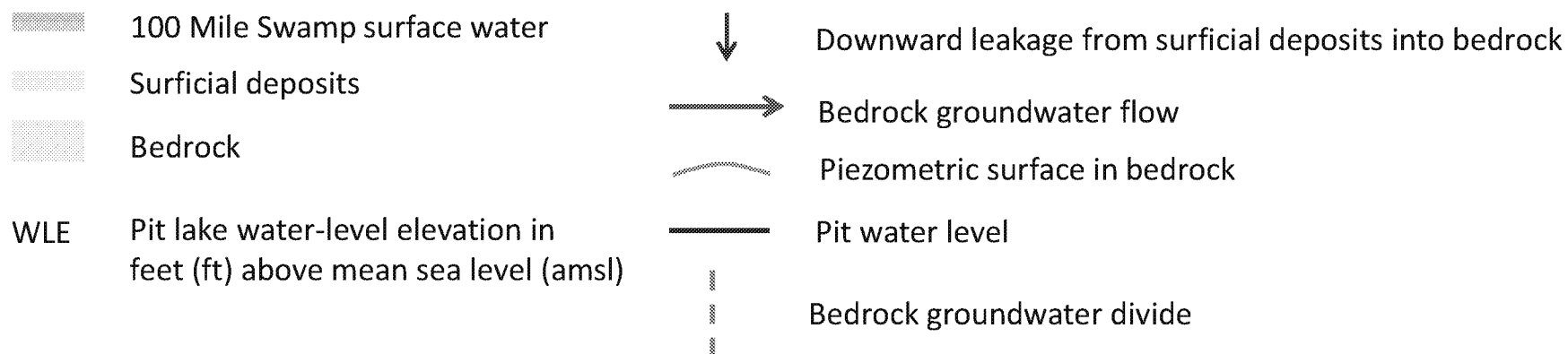


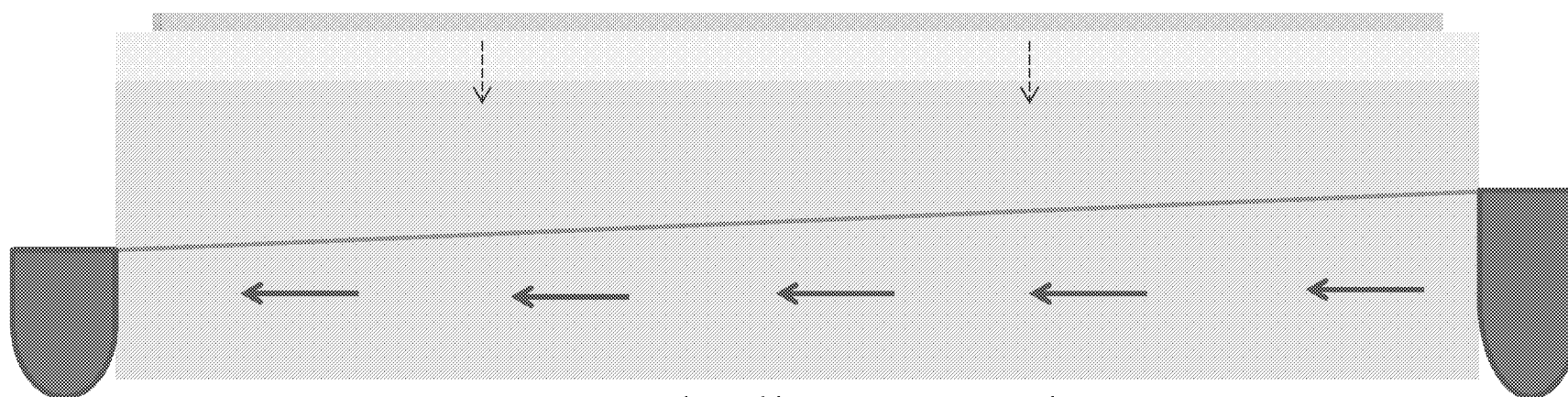
Diagram is not to scale and has extreme vertical exaggeration










**Figure 5: Conceptual Model with Negligible Leakage**

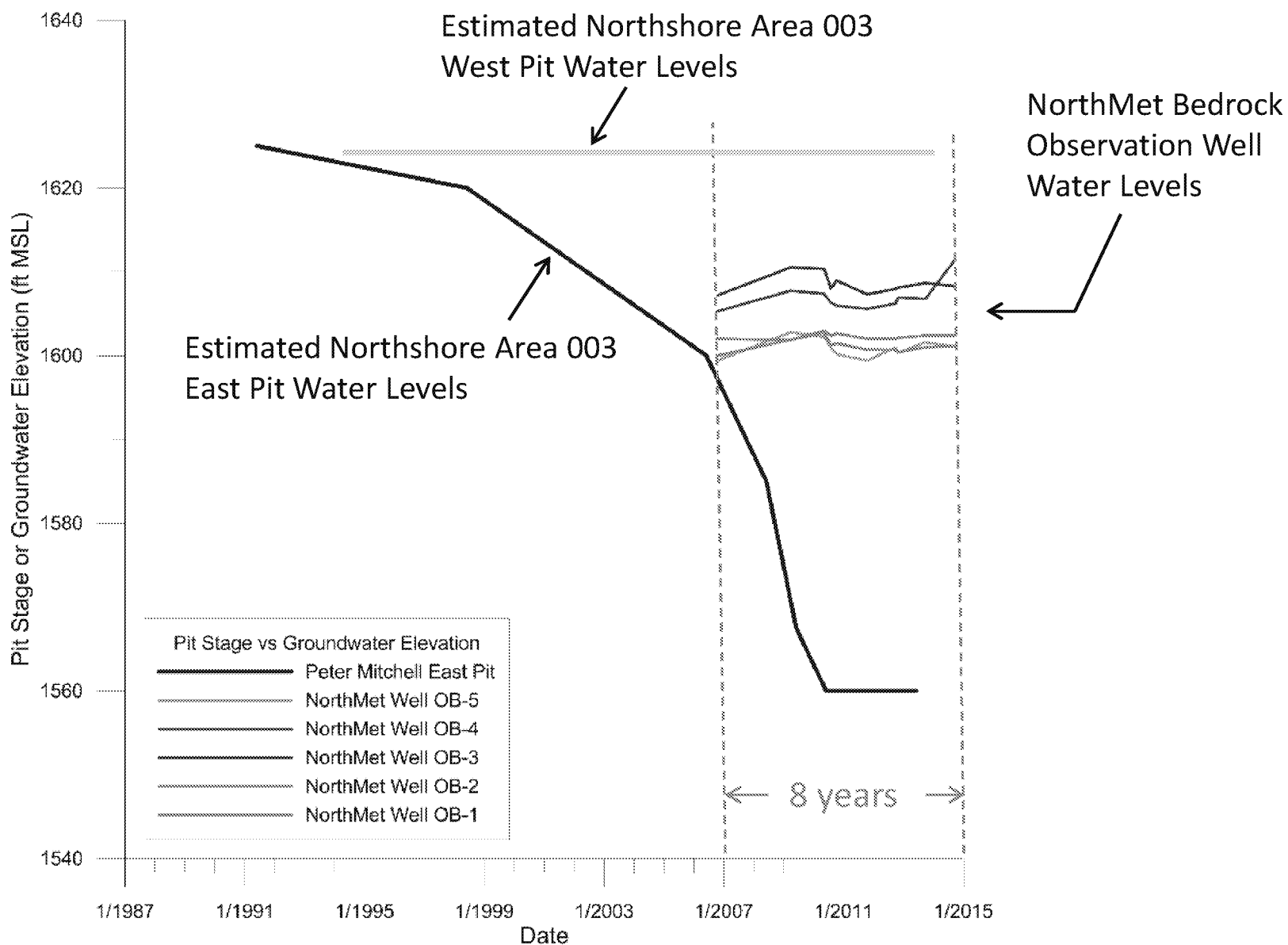
Northshore Area 003 East  
WLE = 1,300 ft amsl (year 2070)  
WLE = 1,500 ft amsl (year 2080+)

NorthMet East Pit  
WLE = 1,592 ft amsl (year 2035+)

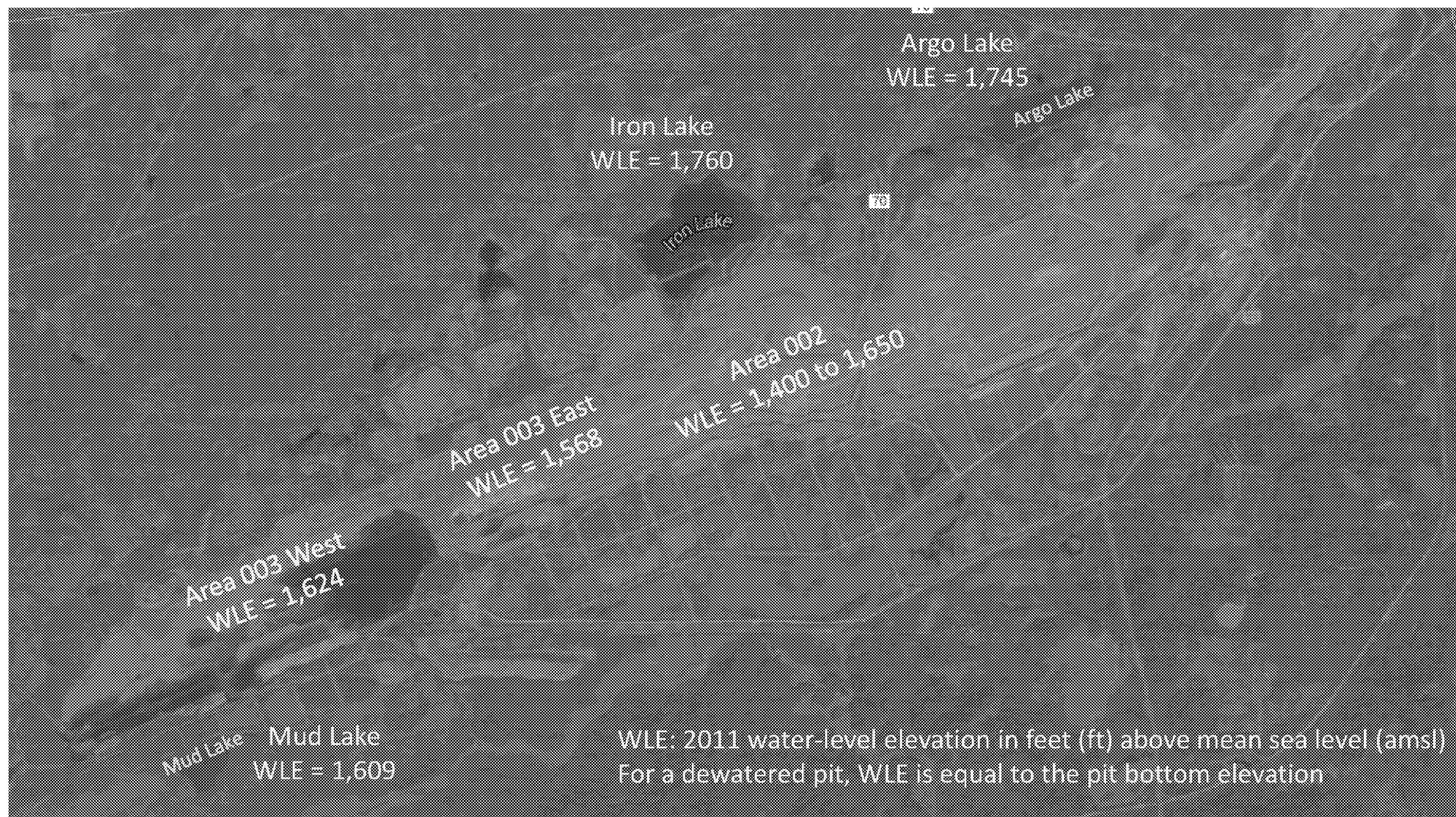


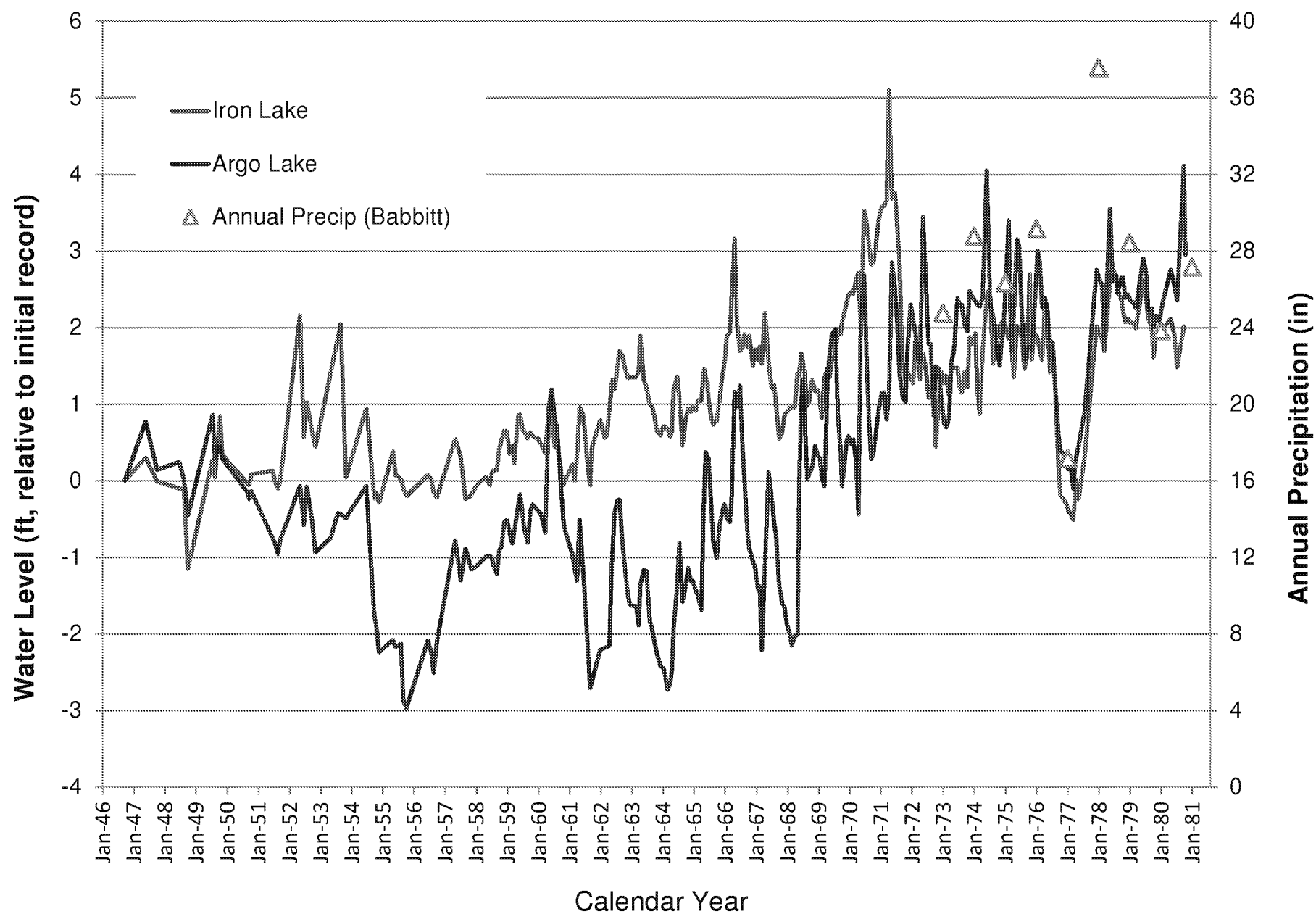
	100 Mile Swamp surface water		Downward leakage from surficial deposits into bedrock
	Surficial deposits		Bedrock groundwater flow
	Bedrock		Piezometric surface in bedrock
WLE	Pit lake water-level elevation in feet (ft) above mean sea level (amsl)		Pit water level

**Figure 6: Response in NorthMet Bedrock Wells Compared to Water Level Changes at Northshore**



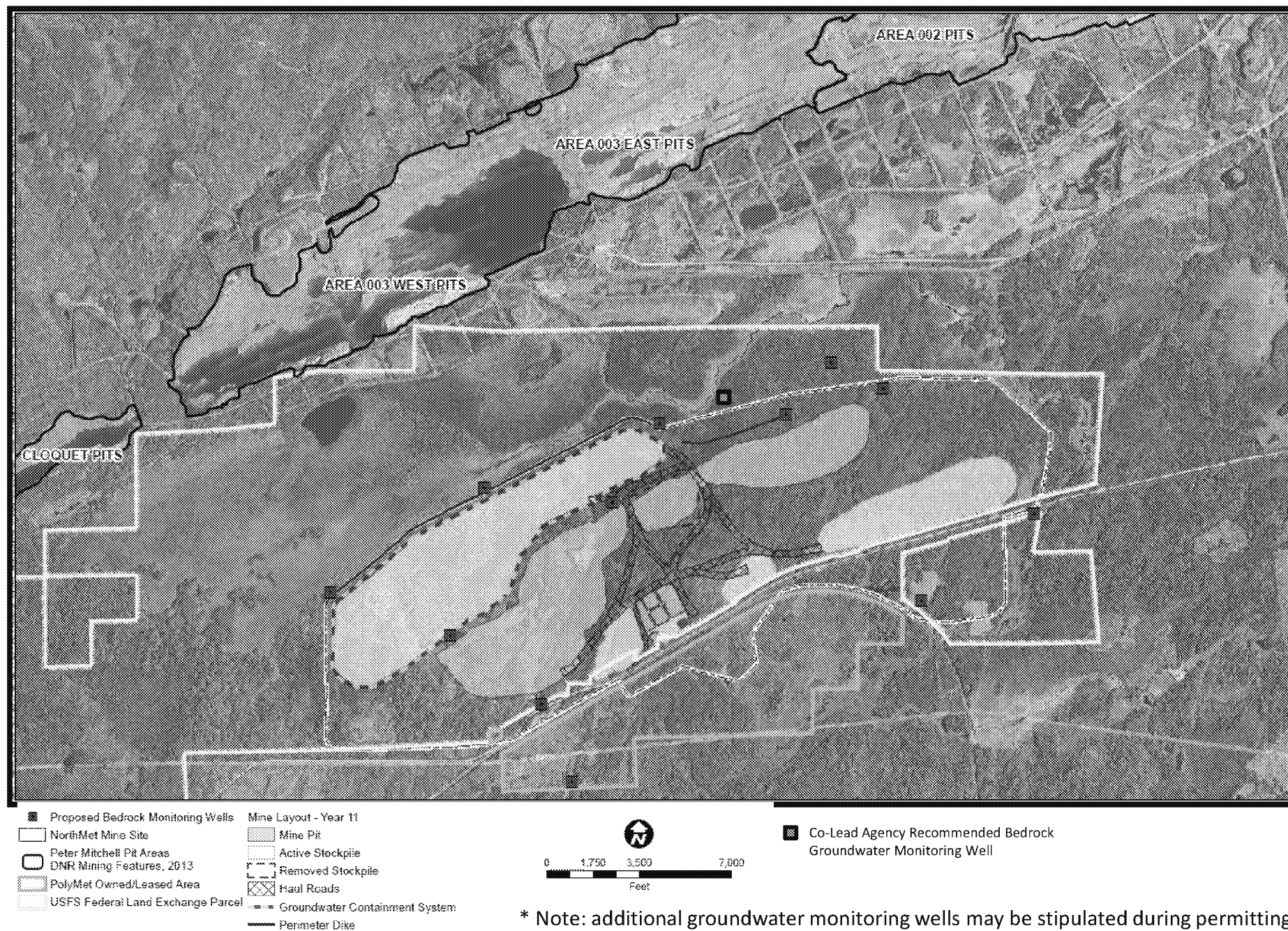
**Figure 7: Lakes Adjacent to Northshore Mine Pits**



**Figure 8: Historic Water Levels in Iron Lake and Argo Lake (1946-1981)**



**Figure 9: PolyMet Proposed and Co-Lead Agency Recommended NorthMet Bedrock Groundwater Monitoring Wells\***



**Figure 10: Conceptual Hydraulics for a Lowered East Pit Water Level**

Northshore Area 003 East WLE

NorthMet East Pit WLE less than  
Northshore Area 003 East WLE

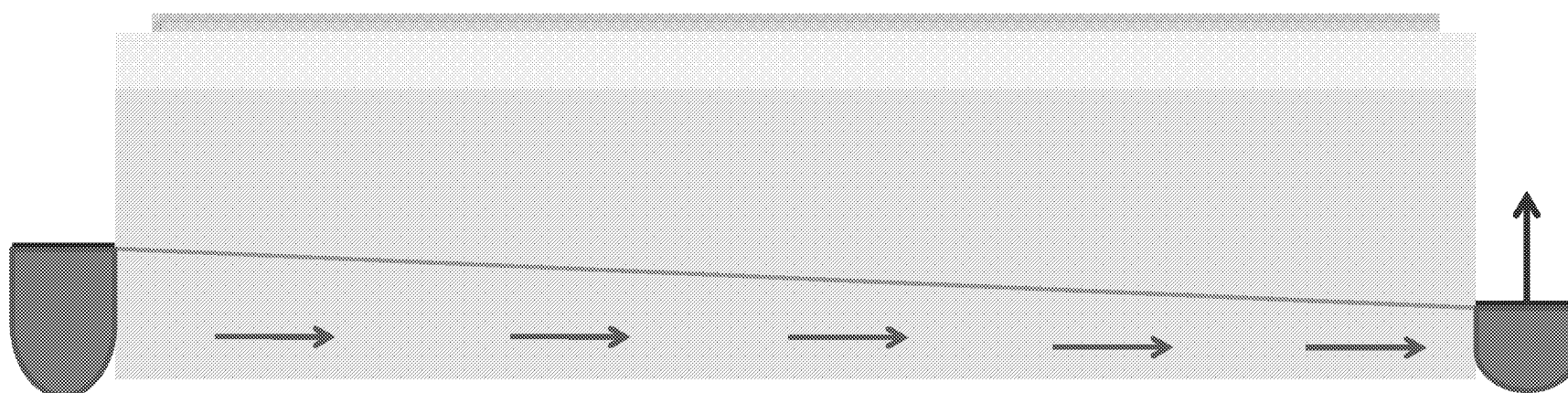
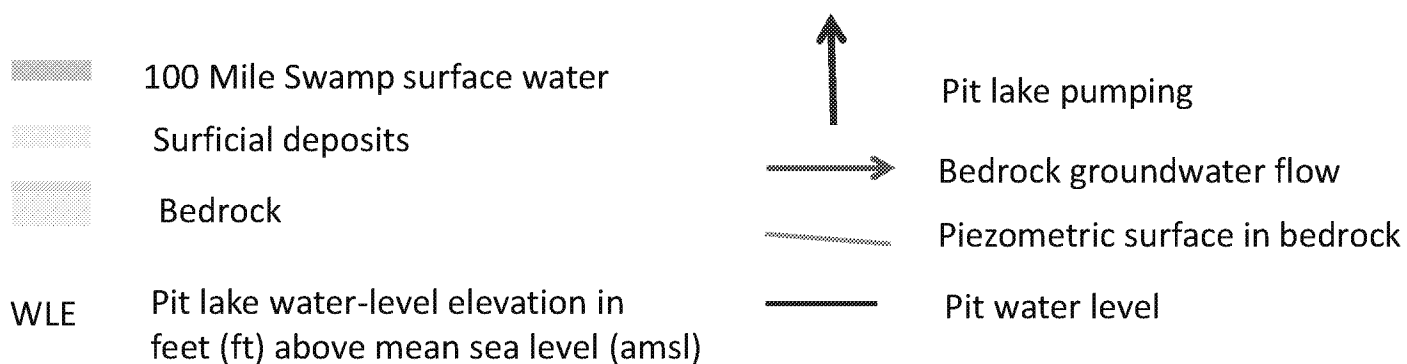
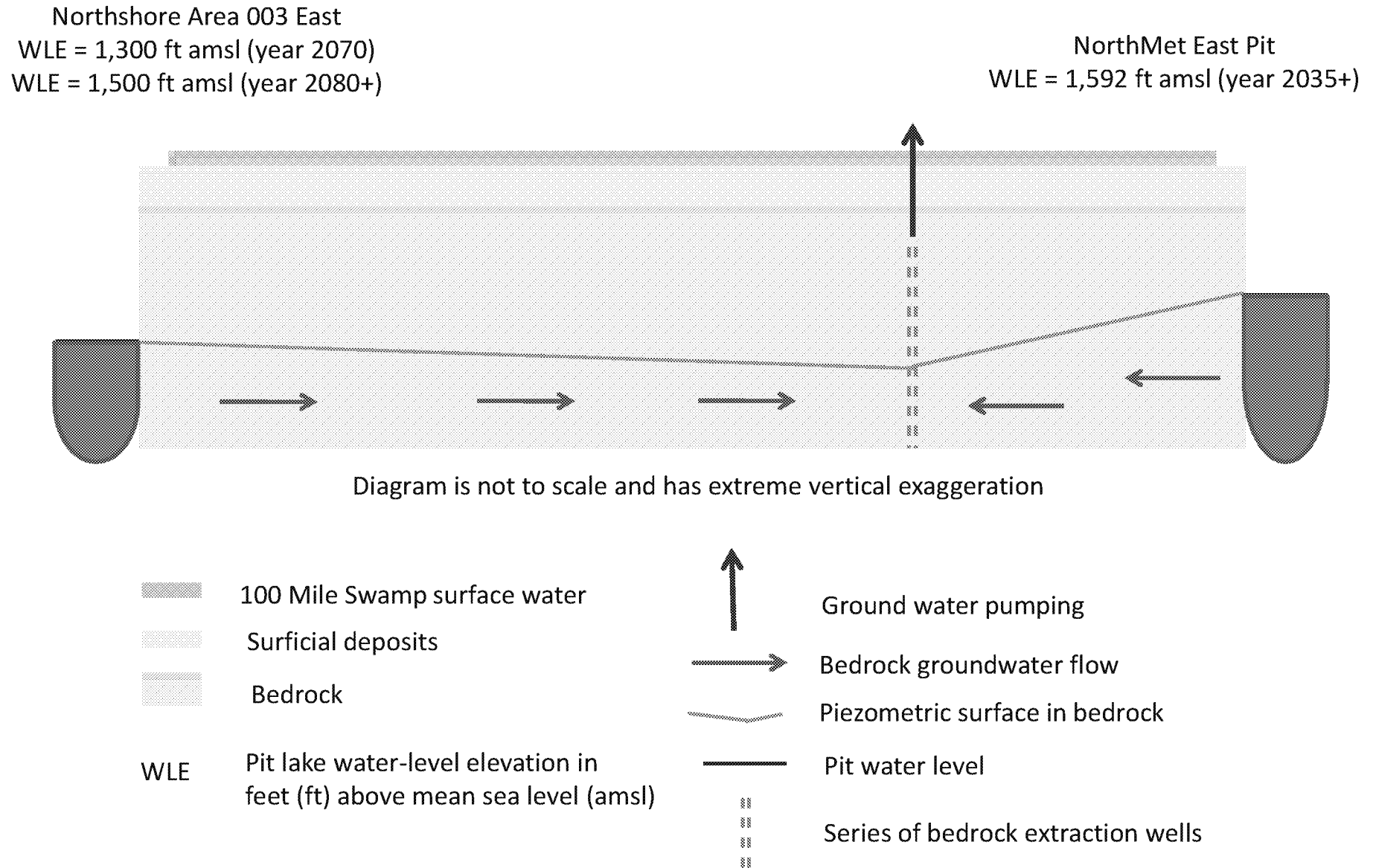


Diagram is not to scale and has extreme vertical exaggeration



<sup>(a)</sup> Note: the water level in the East Pit can be temporarily depressed during refill (by pumping) to prevent a north flowpath from developing while other mitigation options are being evaluated and/or implemented

**Figure 11: Conceptual Hydraulics for a Groundwater Collection System**



**Figure 12: Conceptual Hydraulics for an Artificial Groundwater Mound**

